Sohlberg–Edge Effects on Forest Ecology

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- Forests globally are experiencing not only clearing but also significant fragmentation.
- Estimates show 70% or more of intact forest is within 1 km of a non-forested area.
- Edges increase available sunlight and are typically warmer and drier; they are also a gateway to disturbance and invasive species.

- Birds provide a good opportunity to study edge effects on biodiversity.
- Birds are particularly sensitive to environmental differences, especially during breeding.
- The Cornell / Audubon eBird database provides global geocoded bird observations.

- We use Landsat to compute distance to edge and forest patch size.
- eBird data is aggregated by Olson biomes and realms.
- Species found only in interior forest is computed for edge distances of 100 to 1000 m.

- Results demonstrate that avian biodiversity is more affected by distance to forest edge in tropical vs. temperate ecosystems.